

A NEW SPECIES OF *MANDEVILLA* (APOCYNACEAE) FROM JALISCO, MEXICO

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ABSTRACT

In preparation for a forthcoming treatment of the Apocynaceae of Mexico, a routine examination of herbarium specimens revealed the following new species, *Mandevilla pringlei* J.K. Williams, sp. nov. The new species is distinct from other members of its alliance (sect. *Torosae*) in having sessile leaves and larger peduncles and flowers. In addition, *Mandevilla apocynifolia* (A. Gray) Woodson is here presented to be a synonym of *M. foliosa* (Müll. Arg.) Hemsl.

RESUMEN

En la preparación de un próximo tratamiento de las Apocynaceae de México, un examen de rutina de los especímenes de herbario reveló la nueva especie siguiente, *Mandevilla pringlei* J.K. Williams, sp. nov. La nueva especie se distingue de otros miembros de su alianza (sect. *Torosae*) por tener hojas subsésiles, y pedúnculos y flores más grandes. Además, *Mandevilla apocynifolia* (A. Gray) Woodson se presenta aquí como un sinónimo de *M. foliosa* (Müll. Arg.) Hemsl.

KEY WORDS: Apocynaceae, *Mandevilla*, Jalisco, Mexico

***Mandevilla pringlei* J.K. Williams sp. nov., (Fig. 1). TYPE: MEXICO, JALISCO:**
Río Blanco, near Guadalajara, 22 Jul 1902, C.G. Pringle 11357 (HOLOTYPE: US!).

Mandevilla foliosa (Müll. Arg.) Hemsl. affinis sed foliis subsessilibus petiolis 2–3 mm longis (vice 10–18 mm in *M. foliosa*), pedunculis longioribus (7–10 cm vice 0.3–1.2 cm) lobis corollae longioribus latioribusque (12–15 × 10–14 mm vice 5–8 × 2–4 mm) plantis suffrutescens (vice lignosis ramificantibusque).

Suffrutescent herbs to 0.4 m tall, stems pubescent. Leaves 3–7 cm long, opposite, sessile, pubescent; petioles 2–3 mm long; blades 3–7 cm long, 1.8–2.5 cm wide at middle, ovate-elliptic, apex acute, base sub-cordate, with 2–4 glands at apex of petiole on upper side. Inflorescence lateral, indeterminate, racemose, with 2–10 flowers; peduncles 7–10 cm long, pubescent; bracts 4–6 mm long, narrowly triangular to lanceolate, straight; pedicels 10–17 mm long, pubescent, occasionally twisted. Sepals 5, basally fused, 5–7 mm long, ca 0.5 mm wide, narrowly triangular to lanceolate, straight, pubescent. Corolla salverform, yellow; tube 11–18 mm long, constricted at mouth, lower half internally glabrous, upper half internally pubescent; lobes 12–15 mm long, 10–14 mm wide, obovate, acuminate, occasionally equal in length to the tube but always greater than half its length, spread-



FIG. 1. Holotype of *Mandevilla pringlei* J.K. Williams.

ing, pubescent. Stamens 3–4 mm long; filaments ca 0.5 mm long, pubescent, straight; anthers ca 3 mm long, bases sagittate with blunt lobes. Pistils 7–11 mm long; style 5–7 mm long, glabrous; ovary ovoid, ca 1 mm long, glabrous; pistil head pentagonal, 2–3 mm long. Nectaries 5, as long as to slightly shorter than ovary. Mature follicles unknown, immature follicles fused at apex, pubescent.

Additional specimens examined: MEXICO. JALISCO: Mpio. Mazamitla, Fraccionamiento Los Cazos, to the S of Mazamitla, 9 Jul 1995, *Machuca 7351* (TEX); Cerro Viejo, S face, above Zapotitan de Hidalgo, a village 1 mi N of Hwy MEX 15, ca 25 mi due S, or 45 road mi from Guadalajara, base of mountain in open meadow just E of trail, alt 1890 m, 27 Jun 1956, *D. P. Gregory & G. Eiten 223* (P, SMU); Huejoritan, Jul 1912, *Dignet s.n.* (P).

Distribution.—*Mandevilla pringlei* is known only from five collections made from the Pine–Oak forest near Guadalajara, Jalisco, Mexico.

The new species honors Cyrus Guernsey Pringle (1838–1911) prominent collector of the Mexican flora, and whose collections led to many a new species in the Apocynaceae, and other families.

All specimens are with flowers and buds, *Machuca 7351* is also with fruit but the fruits are extremely immature, only 5 mm in length. The closest relative of *Mandevilla pringlei*, *M. foliosa* (Müll. Arg.) Hemsl., has an average follicle length of 10 cm.

It should be noted that according to Pringle's diary (Davis 1936, p. 199) on the days prior to and after his collections made on July 22, 1902 he was collecting numbers in the 8600 series. This, however, is in contrast to the type collection of *M. pringlei* which is numbered 11357. The diary, however, does specifically state that Pringle was collecting along the Río Blanco, the type locality of *M. pringlei*, on July 22, 1902. In the numerical listing of Pringle's collections (ibid) the number 11357 is used twice. One listing is for *E. apocynifolia* A. Gray (= *M. foliosa* see below) the second is for an unidentified species of Asclepiadaceae. In the absence of a thorough explanation of Pringle's numerical system it is reasonable to assume that the collection number of the above type specimen is simply an error in numbering.

To date the most taxonomically thorough investigation of *Mandevilla* remains Woodson's (1933) revision. Infrageneric relations are at present moderately unclear, however, Woodson provided both subgeneric and sectional divisions which remain undisputed.

Mandevilla pringlei is a member of subgenus *Mandevilla* (as evidenced by the lack of glands along the midrib of the upper surface of the leaves) where it relates to section *Torosae*, evidenced by its suffrutescent habit and non-twinning stems (Woodson 1933). *Mandevilla pringlei* is most closely related to *M. foliosa*, sharing with it an erect habit (opposed to the trailing habits of *M. karwinskii* (Müll. Arg.) Hemsl. and *M. torosa* (Jacq.) Woodson) and hav-



FIG. 2. Comparison of flowers. A. *Mandevilla foliosa* (Müll. Arg.) Hemsl. (V. Funk 2766, TEX). B. *Mandevilla pringlei* J.K. Williams (P. Gregory & G. Eiten 223, SMU). Black bar represents 3 cm.

ing leaves with an average length greater than 5 cm (vs. 2–5 cm of *M. mexicana* (Müll. Arg.) Woodson). *Mandevilla pringlei* differs from *M. foliosa* in a number of floral and habit characters that are contrasted below:

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| 1. Branching shrubs to 1.5 m tall; leaves petiolate, petioles 10–18 mm long; peduncles 0.3–1.2 cm long; corolla lobes 5–8 (10) mm long, 2–4 mm wide, up to but not exceeding half the length of corolla tube (Fig. 2a); stems, leaf blades, inflorescence, and fruit glabrous or pubescent, but midrib of leaves always pubescent; midrib hairs linear lanceolate 0.15–0.3 mm long (Fig. 3a); throughout Mexico | M. foliosa |
| 1. Suffrutescent herbs to 0.4 m tall; leaves subsessile, petioles 2–3 mm long; peduncles 7–10 cm long; corolla lobes 12–15 mm long, 10–14 mm wide, half or more the length of the corolla tube (Fig. 2b); stems, leaves, inflorescence and fruit pubescent; midrib hairs triangular, 0.1–0.15 mm long (Fig. 3b); Jalisco | M. pringlei |

In the most recent keys to the species of *Mandevilla* (Woodson 1933, 1938), *M. pringlei* keys out to *M. apocynifolia* (A. Gray) Woodson (BASIONYM: *Echites apocynifolia*). In fact, Woodson (1933) cites the type of *M. pringlei* as a specimen of *M. apocynifolia*. An examination of an isotype of *M. apocynifolia* (Palmer 734; HOLOTYPE: GH; ISOTYPE: NY!), however, reveals that it is a synonym of *M. foliosa* (Ghiebreghit s.n.; HOLOTYPE: G n.v., photo-holotype F! MO!). Although the type of *M. apocynifolia* is without flowers, it is evident that the sheet represents a specimen of *M. foliosa* due to its branching, petiolate leaves, glabrous stems and fruits, and linear-lanceolate midrib hairs. *Mandevilla foliosa* has both glabrous and pubescent-stemmed populations scattered throughout its range. However, in the region of Jalisco where the type of *M. apocynifolia* was collected the populations have consistently glabrous stems and fruits.

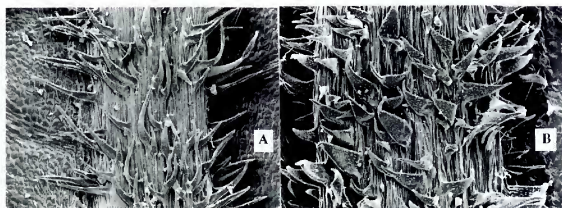


FIG. 3. Scanning electron micrographs of *Mandevilla* midribs of leaf undersurface showing the length and shape of midrib hairs. A. *Mandevilla foliosa* (Müll. Arg.) Hemsl. (R. King & T. Soderstrom 4632, TEX). B. *Mandevilla pringlei* J.K. Williams (Macbucca 7351, TEX). White bar on both photos represents 0.1 mm. Microphotographs made by the author using a Phillips 515 SEM (Cell Resource Center, University of Texas Austin).

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